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**SOURCE** Soviet newspapers as indicated.

## MACHINERY PRODUCTION INCREASES

CONFERENCE DISCUSSES METAL CUTTING -- Economist, No 63, 17 Mar 49

A recent conference of engineers and technicians of the machine plants of Yerevan, Armenian SSR, considered methods for improving production and in particular, metal cutting.

In the "Avtoetal" (auto parts) Plant (chief engineer, A. Mardzhanyan) the machines will be changed over to high-speed cutting. The plant will introduce electric welding of cutting tools out of hard alloy. The plant will be replaced with Textrope (multiple V-belt drive) and the electric drive will be increased. The operation of cutting stock of 50 millimeters diameter has been switched from power hack saws, which proved expensive because of the difficulty in getting blades, to a faceplate lathe with a steel disk having a diameter of 1,080 millimeters. Peripheral velocity of the disk is 30 meters per second. The burrs formed by the disk are removed by working the end of the stock with the disk turning at a few revolutions per minute. In 2 1/2 months, this method has been used to cut 10,000 pieces of stock and wear on the disk has been only 1.5 millimeters.

Centralized grinding has been introduced in the Machine Tool Plant (Izmenitsynskiy) (chief technician, M. Matzakanyan). This process employs milling cutters and a special milling cutter with a diameter of 120 millimeters and eight teeth, reinforced with type VK-8 hard alloy, which act as removable cutters. The cutters are given negative undercuts. Peripheral velocity of the machine is up to 120 meters per minute.

polishing, the plant has introduced a solution of potassium bichromate in water as a ~~medium~~ <sup>medium</sup>. This achieves a saving of emulsifier, improves the quality of the polishing, and prevents rusting of the machines.

The screw-cutting lathe has been modernized and now operates at 815 rpm.

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LENINGRAD PLANTS PRODUCE NEW MACHINERY -- *Leninskaya Pravda*, No 40, 18 Feb 49

The Leningrad Machinery Plant of the Main Administration of the Construction Materials Industry, Ministry of Petroleum Industry, has started the production of a new pipe layer mounted on an S-80 tractor. It has a hoisting capacity of 10 tons, almost twice as much as previous machines. This new machine is intended to lay petroleum and gas pipe but may also be used for loading and unloading operations. The first three machines were sent to Baku.

*Leninskaya Pravda*, No 41, 19 Feb 49

The Leningrad Port Machinery Shop has constructed new battery-operated cranes with a hoisting capacity of  $\frac{1}{2}$  ton. The cranes have been tested for loads up to 800 kilograms.

*Leninskaya Pravda*, No 41, 19 Feb 49

The Metallurgical Plant imeni Stalin has completed the construction of a 30,000-kilowatt high-pressure steam turbine. The plant succeeded in shortening the production cycle by 2 months, in comparison with the production of the first such machinery.

*Leninskaya Pravda*, No 41, 19 Feb 49

"Lengazapparat" Plant No 3 has started production of automatic safety devices for shutting off gas during temporary cutoffs of the gas supply and when the pressure in the gas main is low.

BELORUSSIAN PLANTS INTRODUCE NEW PRODUCTION METHODS -- *Sovetskaya Belorussiya*, No 58, 22 Mar 49

The Vitebsk Grinder Plant has introduced improvements in screw-threading operations. Technicians of the machine shop have modified the DIP-200 machine, which is manufactured in the "Krasny Proletariy" Plant in Moscow. The bed of the machine has been deepened to give greater stability and a more powerful motor has been installed. The machine now has two cutters with the improved angles and lateral edges. The spindle turns at 1,000 rpm with a cutting speed of 80 meters per minute. To increase durability of the cutters, the negative undercuts have been changed from 5-7 degrees to 3 degrees. The cutters are set 0.4 millimeters below the center of the stock being threaded.

Over-all length of the parts threaded on this machine is about one meter, and the length of the machined part, 486 millimeters. The threads are trapezoidal with a pitch of 2 millimeters and the depth of the grooves is 1.4 millimeters. The diameter of the parts is 26 millimeters.

*Sovetskaya Belorussiya*, No 56, 19 Mar 49

The Minsk Machine-Tool Plant imeni Kirov has introduced briquetting of cast-iron scrap to be used in making parts. Thousands of kilograms of metal will be saved, transport will be released, and an estimated economy of 70,000 rubles will be achieved.

*Sovetskaya Belorussiya*, No 56, 19 Mar 49

The locomobile plant in Mogilev, Mogilev Oblast, has increased production  $3\frac{1}{2}$  times since 1948. New stamps, automatic welding of parts, and assembly-line manufacture of parts have been introduced.

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LITHUANIA GETS MORE MACHINE TOOLS -- Sovetskaya Litva, No 39, 17 Feb 49

The number of machine tools has almost doubled in Lithuanian enterprises during the Five-Year Plan. During the first 2 years the number of metal-cutting machines increased by 1,600, the number of forge presses by 450, and the number of woodworking machines by 710.

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